CLAIMS (29267)

What is claimed is:

1. A method of interpolation for a Bayer color-filtered array, comprising the steps of:

(a) interpolate the green subarray a Bayer pattern color-filtered array to form a first green array;

(b) clamp the interpolated pixel values of the first green array to lie in the range of the middle two values of the four neighboring values of the green subarray, the clamp of the first green array yields a final green array; and

(c) interpolate the red and blue subarrays.

2. The method of claim 1 wherein:

(a) the interpolate step (a) of claim 1 is by a symmetric 5x5 FIR filter.

3. The method of claim 1 wherein:

(a) the interpolate step (a) of claim 1 leaves the pixels values of the pixels in the green subarray unchanged.

4. An interpolator for a Bayer pattern color-filtered array, comprising:

(a) an interpolator for the green subarray of a Bayer pattern color-filtered array to form a first green array;

(b) a clamp for the interpolated pixel values of the first green array to adjust the pixel values to lie in the range of the middle two values of the four neighboring values of the green subarray, the clamp of the first green array yields a final green array;

(c) an interpolator for the red subarray; and

(c) an interpolator for the blue subarray.

5. The interpolator of claim 4, wherein:

(a) the interpolator for the green subarray leaves the pixels values of the pixels in the green subarray unchanged.

6. An interpolator for a Bayer pattern color-filtered array, comprising:

(a) a processor programmed to

(i) interpolate the green subarray of a Bayer pattern color-filtered array to form a first green array;

(ii) clamp the interpolated pixel values of the first green array to lie in the range of the middle two values of the four neighboring values of the green subarray, the clamp of the first green array yields a final green array; and

(iii) interpolate the red and blue subarrays.